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## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 27 September 2001 (27.09.01)	
<b>International application No.</b> PCT/GB00/04672	<b>Applicant's or agent's file reference</b> SL/SMR/OML.44
<b>International filing date (day/month/year)</b> 07 December 2000 (07.12.00)	<b>Priority date (day/month/year)</b> 08 December 1999 (08.12.99)
<b>Applicant</b> MARSHALL, Jeremy et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
 05 July 2001 (05.07.01)

☐ in a notice effecting later election filed with the International Bureau on:  
 \_\_\_\_\_

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b> Pascal Piriou Telephone No.: (41-22) 338.83.38
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>SL/SMR/OML.44</b>	<div style="display: flex; justify-content: space-between;"> <div> <b>FOR FURTHER ACTION</b> </div> <div>           See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)         </div> </div>	
International application No. <b>PCT/GB00/04672</b>	International filing date (day/month/year) <b>07/12/2000</b>	Priority date (day/month/year) <b>08/12/1999</b>
International Patent Classification (IPC) or national classification and IPC <b>A61B5/15</b>		
Applicant <b>OWEN MUMFORD LIMITED et al.</b>		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 2 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand  <b>05/07/2001</b>	Date of completion of this report  <b>08.03.2002</b>	
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>             European Patent Office              D-80298 Munich              Tel. +49 89 2399 - 0 Tx: 523656 epmu d              Fax: +49 89 2399 - 4465           </div> </div>	Authorized officer  <b>Gaillard, A</b>  Telephone No. +49 89 2399 7474	



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/04672

## I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
- Description, pages:**

1-6 as originally filed

### **Claims, No.:**

1-7 as received on 21/02/2002 with letter of 19/02/2002

### **Drawings, sheets:**

1/2,2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/04672

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims	1-7
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-7
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-7
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB00/04672

**Re Item VIII**

**Certain observations on the international application**

**VIII.1. Lack of clarity in claim 5**

The clarity problem in claim 5 arises due to the fact that the wording "the projections **engage..and reverts** to its natural shape" involves activities and it is unclear in which ways these activities are supposed to limit the respective defined devices.

Probably, the right wording for these Claims could have been respectively, e.g. "are/is adapted to engage and revert".

For such amended claim 5 the following comments would apply as to novelty and inventive step.

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following document:

D1: US-A-5 324 303 (ORINGER ROBERT ET AL) 28 June 1994 (1994-06-28) cited in the application

**V.1. Independent device claim 1**

The document D1 (col. 2, lines 1-31 ; col. 5, lines 40-46 ; Fig. 1-3 : Fig. 9a-9c) is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document):

a combined lancet and cap , the cap (5) and the lancet body (3) being integrally moulded in plastics material with the cap concealing the needle tip (7) but being breakable away from the body to expose that tip, wherein the cap is moulded with a shape that requires manual deformation (19) to fit the firing device and wherein, when removed after use, the cap can revert to its natural shape and thereby can capture and remove the lancet with the needle tip safe within the cap.

The subject-matter of independent device claim 1 (characterising part) therefore differs from this known D1 in that the cap is moulded with an elliptical open end portion which

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB00/04672

requires **lateral compression** in its major axial plane to deform it to a circular shape capable of fitting to the circular forward end of a firing device.

Document D1 discloses also a manual deformable cap but said cap has to be pressed through an **axial pressure** in the axial direction onto the firing device to fit said firing device.

The features defined in the characterising part of said claim 1 are not known from the prior art. Furthermore no hint is given in order to arrive to an obvious manner at the solution proposed in said claim 1.

Thus, the subject matter of claim 1 is therefore novel and involves an inventive step. Consequently claim 1 meets the requirements of Article 33(2)(3) PCT.

**V.2. Dependent device claims 2-7**

Claims 2-7 are dependent on independent device claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

REPLACED BY  
ART 34 AMDTClaims

1. A combined lancet and cap for a lancet firing device to which the cap can be fitted to provide an apertured platform to bear against the user's skin and through which the tip of the lancet needle is momentarily projected when the device is fired, the cap and lancet body being integrally moulded in plastics material with the cap concealing the needle tip but being breakable away from the body to expose that tip, wherein the cap is moulded with a shape that requires manual deformation to fit the firing device and wherein, when removed after use, the cap reverts to its natural shape and thereby captures and removes the lancet with the needle tip safe within the cap.
2. A combined lancet and cap as claimed in Claim 1, wherein the rear end of the cap is non-circular, deformable into circular to fit a firing device.
3. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a screw thread.
4. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a bayonet type fitting.
5. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a snap fitting.
6. A combined lancet and cap as claimed in any one of Claims 2 to 5, wherein the interior of the cap has opposed projections on its minor axis and the lancet body has an



abutment behind which the projections engage when the cap is removed from a firing device and reverts to its natural shape, but which is clear of the projections when the cap is deformed and fitted to a firing device.

- 5 7. A combined lancet and cap as claimed in Claim 6, wherein the lancet has a further abutment to the rear of the first one, the projections engaging between the abutments when the cap is removed from a firing device.
- 10 8. A combined lancet and cap as claimed in any preceding claim, in combination with a firing device, wherein the rear end of the lancet body is non-rotatively receivable by a holder in the firing device.

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
14 June 2001 (14.06.2001)

PCT

(10) International Publication Number  
**WO 01/41642 A1**

(51) International Patent Classification<sup>7</sup>: A61B 5/15

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(21) International Application Number: PCT/GB00/04672

(22) International Filing Date: 7 December 2000 (07.12.2000)

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(25) Filing Language: English

(81) Designated States (*national*): JP, US.

(26) Publication Language: English

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(30) Priority Data:  
9928876.3 8 December 1999 (08.12.1999) GB

**Published:**

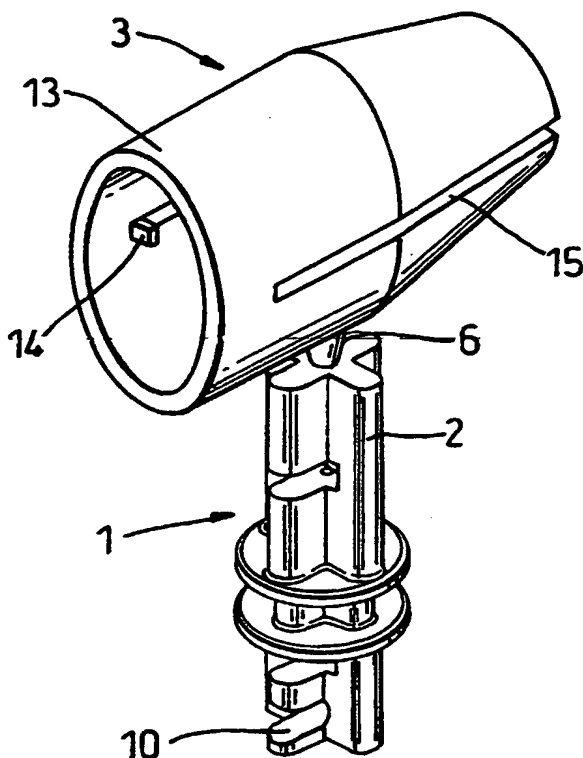
- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

(71) Applicant (*for all designated States except US*): OWEN MUMFORD LIMITED [GB/GB]; Brook Hill, Woodstock, Oxford OX20 1TU (GB).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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(75) Inventors/Applicants (*for US only*): MARSHALL, Jeremy [GB/GB]; 16 Cranham Street, Jericho, Oxford

(54) Title: INTEGRATION OF A LANCETTE WITH ITS CAPTURING AND REMOVING CAP



(57) Abstract: A lancet body (2) is integrally moulded with a cap (3) for a firing device, the cap concealing the needle tip (5). The cap (3) can be used to insert the lancet (1), which is held while the cap is twisted off. The cap (3) is then fitted to the firing device to provide an apertured platform to be held against the skin and through which the needle tip (5) will momentarily project. The cap (3) has to be deformed to fit, and on being removed and recovering its natural shape internal lugs (14) catch hold of the released lancet (1) and remove that as well.

WO 01/41642 A1

## INTEGRATION OF A LANCETTE WITH ITS CAPTURING AND REMOVING CAP

This invention relates to combined lancets and caps.

Such a combination is described in US 5,324,303. A lancet body is integrally moulded with a cap, initially to  
5 conceal the tip of a needle largely embedded in the lancet body. This renders the tip safe while the lancet is handled before use. The cap can be twisted off to reveal the needle tip and then fitted to the forward end of a firing device, with the lancet inserted. It provides a platform  
10 which is pressed against the user's skin and an aperture through which the needle tip is momentarily projected when the device is fired.

After use, the lancet should be disposed of safely since the needle will be contaminated. This can easily  
15 spread to the cap as well, and so that should be disposed of at the same time. The firing device is not at risk, and can be re-used indefinitely.

It is the aim of this invention to provide an arrangement where the removal of the cap also removes the lancet  
20 with its needle tip safely housed inside the cap, so that both can be thrown away together without exposure of the needle tip.

According to the present invention there is provided a combined lancet and cap for a lancet firing device to which  
25 the cap can be fitted to provide an apertured platform to bear against the user's skin and through which the tip of the lancet needle is momentarily projected when the device

is fired, the cap and lancet body being integrally moulded in plastics material with the cap concealing the needle tip but being breakable away from the body to expose that tip, wherein the cap is moulded with a shape that requires manual deformation to fit the firing device and wherein, when removed after use, the cap reverts to its natural shape and thereby captures and removes the lancet with the needle tip safe within the cap.

In one preferred form the rear end of the cap is non-circular. Compression along its major axis will cause it to become circular to fit a firing device, cylindrical at its forward end at least. There are various possible modes of engagement, for example by screw thread, by a bayonet type fitting, or by snap-fitting.

Also in the preferred form, the interior of the cap has opposed projections on its minor axis and the lancet body has an abutment behind which the projections can engage when the cap is removed from a firing device and reverts to its natural shape but which is clear of the projections when the cap is deformed and fitted to a firing device. Assuming the rear end of the cap is elliptical, reducing the major axis increases the minor axis of the cross-section, thereby moving the projections outwardly where they do not interfere with the forward and reverse motion of the lancet.

It is also advisable for the lancet to have a further abutment to the rear of the first one, the projections engaging between the abutments when the cap is removed from a firing device. This will prevent the lancet moving

forward sufficiently for the needle tip to be re-exposed through the front of the cap.

The lancet body should be non-rotative in the firing device. It can be inserted using the cap as a handle, the rear end of the lancet being receivable by a holder within the device. The cap is then twisted to break away from the lancet body. The lancet body and holder will conveniently be adapted to be retained in a retracted position within the firing device when the lancet is inserted. It will therefore be prevented from falling out accidentally before the cap is fitted, and it will be properly located for firing.

For a better understanding of the invention, one embodiment will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a combined lancet and cap,

Figure 2 is a side view of the lancet and cap,

Figure 3 is another side view of the lancet and cap in the direction A of Figure 2,

Figure 4 is a section on the line IV-IV of Figure 2,

Figure 5 is a section on the line V-V of Figure 2,

Figure 6 is a section on the line VI-VI of Figure 2, and,

Figure 7 is a section on the line VII-VII of Figure 2.

A lancet 1 has a plastics body 2 integrally moulded with a cap 3. The body 2 contains a needle 4 whose tip 5 projects into a neck 6 which connects the body 2 and the cap

3. The lancet is designed to be fired by a device (not shown) into whose forward end the cap 3 can fit.

The lancet 1 is mostly of cruciform shape throughout its length, but shortly beyond its mid-point from the cap 3 there are two axially spaced circular ribs 7 and 8 of a radius that makes them slightly proud of the cylindrical envelope of the rest of the body 2. There are various diametral and radial passages 9 and 10 left by the moulding process, are necessary for holding the needle 4.

The cap 3 is of cup-like form with a circular base 11 having a central aperture 12. From the rim of the base 11 it flares outwardly, developing into an elliptical cross-section, and at about the mid-length there is a break into a portion 13 of constant elliptical cross-section. The neck 6 is situated at this break. Internally of this portion 13 there are two opposed lugs 14 on the minor axis of the elliptical cross-section. These are at the ends of longitudinal slots 15 extending from the base 11 which are necessary for simplifying the mould.

For use, the lancet 1 and cap is inserted rear end first into the cylindrical forward end of a firing device using the cap 3 as a handle. The lancet is captured within the device by means of interference between its rear end and a spring-loaded, cup-like lancet holder. It is held against rotation by the action of internal ribs within the lancet holder engaging with the cruciform shape of the lancet body. The lancet holder itself is held against rotation but can of course move longitudinally of the firing device when

released. The action of pushing the lancet in may retract the holder to a cocked position, where it is held by a trigger device. The cap 3 is then twisted, and this breaks it away from the lancet body 2 at the narrowest point of the neck 6, leaving the tip of the needle 5 exposed. The large open end portion 13 of the cap 3 is then presented to the forward end of the firing device, the portion 13 being squeezed along the major axis of the elliptical cross-section. The nature of the plastics material and its thickness allow it to be deformed into a circular cross-section. It can then enter the forward end of the firing device and, for example, screw into it. But as mentioned above, there are other forms of engagement.

The device is used by placing the base 11, serving as a platform, against the skin, and firing the lancet so that the needle tip momentarily projects through the aperture 12. The lancet bounces back so that the tip is safely within the cap. The lugs 14 are then opposite or possibly slightly to the rear of the gap between the ribs 7 and 8. The cap is removed and, if it is an unscrewing action, the length of the thread is such that the lugs 14 will remain in or come into registry with the gap between the ribs 7 and 8 as the cap comes clear. Alternatively, if the lancet cap 3 is clipped into the front of the firing device then it may be removed by sliding an ejector of the device forwards, which then acts on the edge of the open end portion 13 of the cap, pushing it away from the device. As the cap is freed from whatever engagement it had with the firing device the

portion 13 immediately reverts to its elliptical cross-section and the lugs 14 close towards each other and engage between the ribs 7 and 8. The lancet 1 is therefore captured by the cap 3 with the needle tip safely inside.

5 The cap is lightly pulled by the rib 7 to unplug the lancet 1 from the spring-loaded holder and it can then be thrown away with the lancet attached as a single item. The rib 8 stops the lancet moving forwards within the cap sufficiently to re-expose the needle tip 5 through the aperture 12.

10 With the lancet shown, the cap is intended to fit within the forward end of the firing device. But with some re-design, bringing the ribs 7 and 8 forwards, and making the lugs 14 more prominent as well as having them not so far back, a cap could be made to fit (with the necessary  
15 preliminary distortion) outside the firing device.



Claims

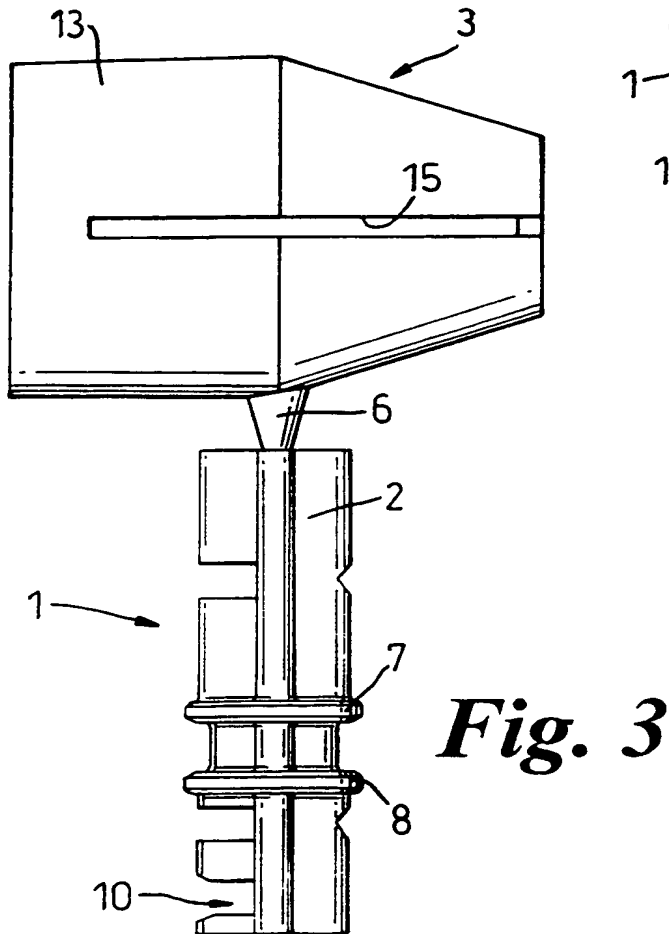
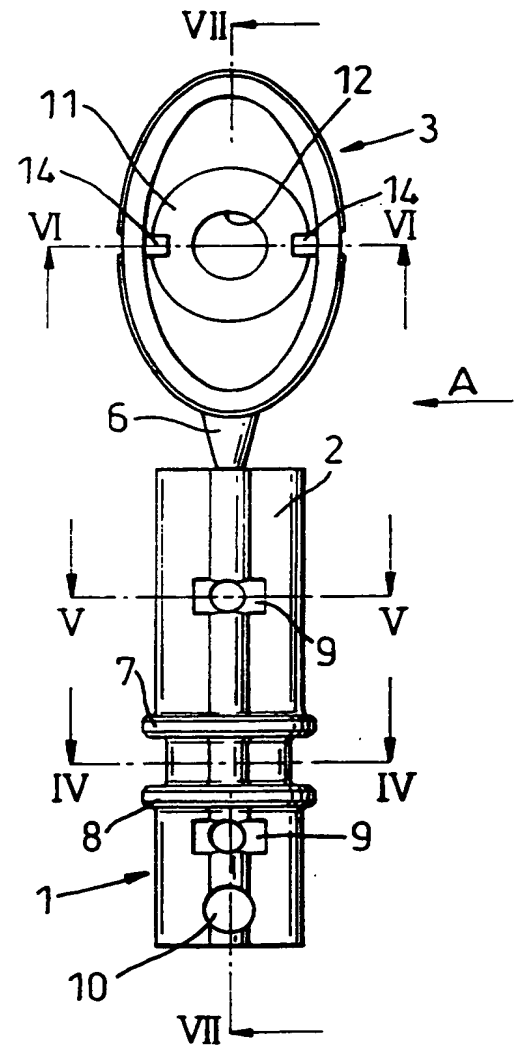
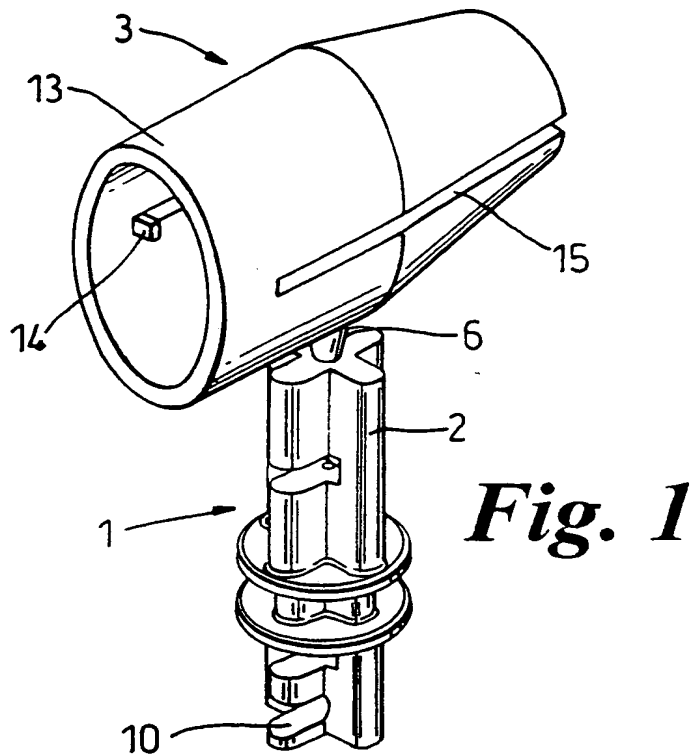
1. A combined lancet and cap for a lancet firing device to which the cap can be fitted to provide an apertured platform to bear against the user's skin and through which the tip of the lancet needle is momentarily projected when the device is fired, the cap and lancet body being integrally moulded in plastics material with the cap concealing the needle tip but being breakable away from the body to expose that tip, wherein the cap is moulded with a shape that requires manual deformation to fit the firing device and wherein, when removed after use, the cap reverts to its natural shape and thereby captures and removes the lancet with the needle tip safe within the cap.
2. A combined lancet and cap as claimed in Claim 1, wherein the rear end of the cap is non-circular, deformable into circular to fit a firing device.
3. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a screw thread.
4. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a bayonet type fitting.
5. A combined lancet and cap as claimed in Claim 2, wherein the cap is adapted to engage a firing device by a snap fitting.
6. A combined lancet and cap as claimed in any one of Claims 2 to 5, wherein the interior of the cap has opposed projections on its minor axis and the lancet body has an

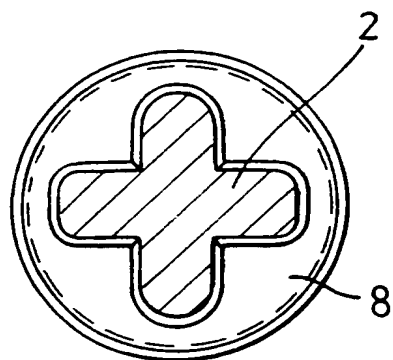
abutment behind which the projections engage when the cap is removed from a firing device and reverts to its natural shape, but which is clear of the projections when the cap is deformed and fitted to a firing device.

5 7. A combined lancet and cap as claimed in Claim 6, wherein the lancet has a further abutment to the rear of the first one, the projections engaging between the abutments when the cap is removed from a firing device.

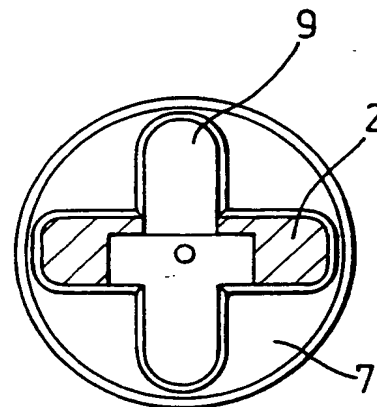
10 8. A combined lancet and cap as claimed in any preceding claim, in combination with a firing device, wherein the rear end of the lancet body is non-rotatively receivable by a holder in the firing device.

1/2

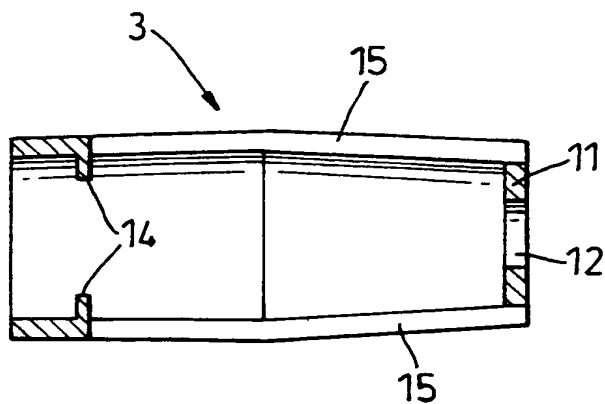




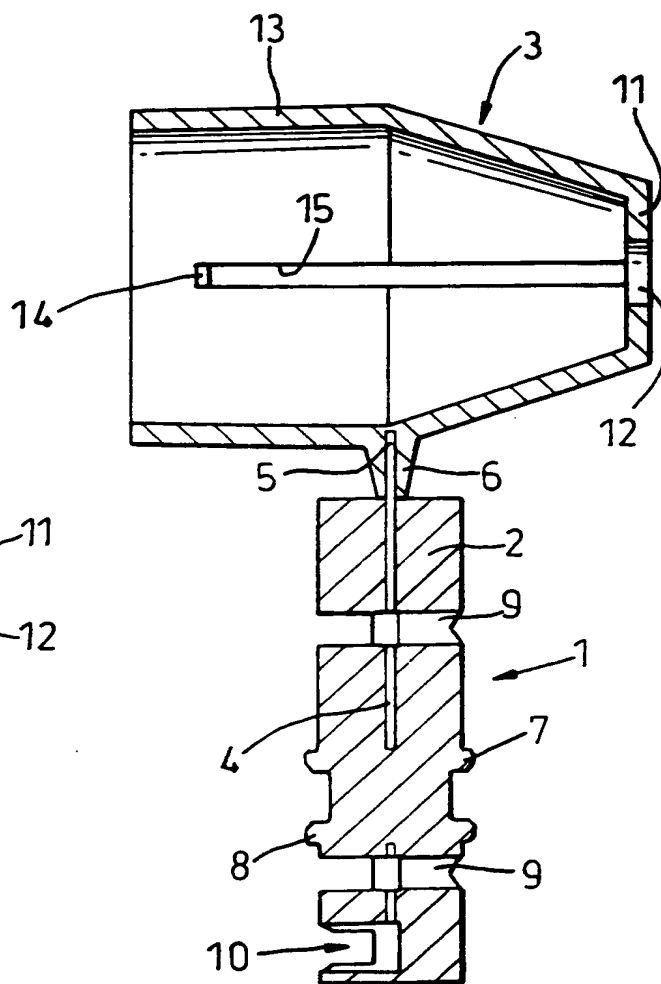
**Fig. 4**



**Fig. 5**



**Fig. 6**



**Fig. 7**

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/04672

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B5/15

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 324 303 A (ORINGER ROBERT ET AL) 28 June 1994 (1994-06-28) cited in the application column 2, line 1 - line 31 column 5, line 40-46 ---	1,5-8
A	EP 0 885 590 A (BAYER AG) 23 December 1998 (1998-12-23) abstract; figures 1,2 ---	3
A	US 5 304 193 A (ZHADANOV SAM) 19 April 1994 (1994-04-19) abstract; figure 1 column 1, line 65 -column 2, line 11 --- -/--	4



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

25 April 2001

Date of mailing of the international search report

10/05/2001

Name and mailing address of the ISA

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Authorized officer

Gaillard, A

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/04672

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 454 828 A (SCHRAGA STEVEN) 3 October 1995 (1995-10-03) abstract column 2, line 26 -column 3, line 15; figures 1-4 ---	1
A	DE 197 18 081 A (BOEHRINGER MANNHEIM GMBH) 5 November 1998 (1998-11-05) abstract column 2, line 11 - line 39; figures 1,.3 -----	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/04672

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5324303	A	28-06-1994	CA 2079192 A US 5423847 A	26-03-1994 13-06-1995
EP 0885590	A	23-12-1998	US 5916230 A AU 709062 B AU 7187298 A CA 2236133 A JP 11009577 A	29-06-1999 19-08-1999 17-12-1998 16-12-1998 19-01-1999
US 5304193	A	19-04-1994	NONE	
US 5454828	A	03-10-1995	AU 2186495 A WO 9524868 A	03-10-1995 21-09-1995
DE 19718081	A	05-11-1998	AU 7432398 A WO 9848695 A EP 0987983 A	24-11-1998 05-11-1998 29-03-2000

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
14 June 2001 (14.06.2001)

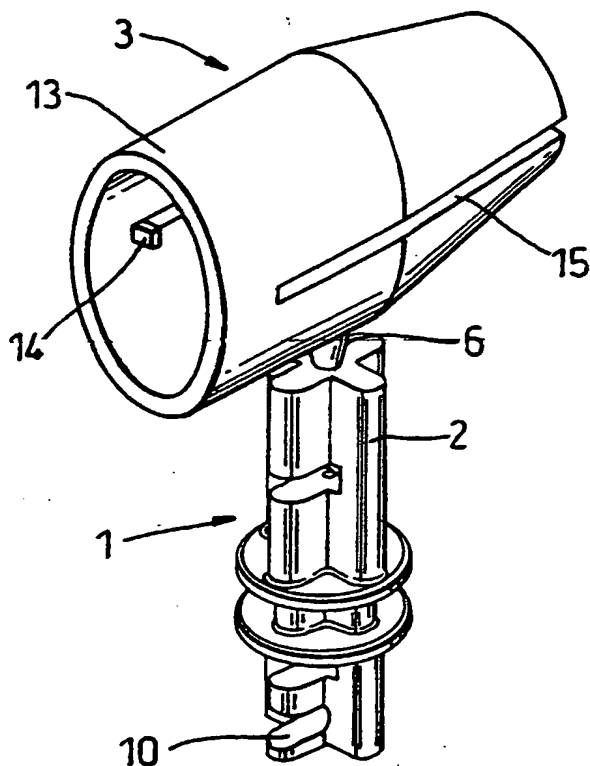
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(10) International Publication Number  
**WO 01/41642 A1**

- (51) International Patent Classification<sup>7</sup>: A61B 5/15 OX2 6DD (GB). CROSSMAN, David, Danvers [—/GB]; The Tower, Christmas Common, Oxford OX9 5HL (GB).
- (21) International Application Number: PCT/GB00/04672
- (22) International Filing Date: 7 December 2000 (07.12.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
9928876.3 8 December 1999 (08.12.1999) GB
- (71) Applicant (for all designated States except US): OWEN MUMFORD LIMITED [GB/GB]; Brook Hill, Woodstock, Oxford OX20 1TU (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MARSHALL, Jeremy [GB/GB]; 16 Cranham Street, Jericho, Oxford
- (74) Agents: LAINE, Simon, James et al.; Wynne-Jones, Laine & James, 22 Rodney Road, Cheltenham, Gloucestershire GL50 1JJ (GB).
- (81) Designated States (national): JP, US.
- (84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- Published:**  
— With international search report.  
— Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTEGRATION OF A LANCETTE WITH ITS CAPTURING AND REMOVING CAP



(57) Abstract: A lancette body (2) is integrally moulded with a cap (3) for a firing device, the cap concealing the needle tip (5). The cap (3) can be used to insert the lancette (1), which is held while the cap is twisted off. The cap (3) is then fitted to the firing device to provide an apertured platform to be held against the skin and through which the needle tip (5) will momentarily project. The cap (3) has to be deformed to fit, and on being removed and recovering its natural shape internal lugs (14) catch hold of the released lancette (1) and remove that as well.

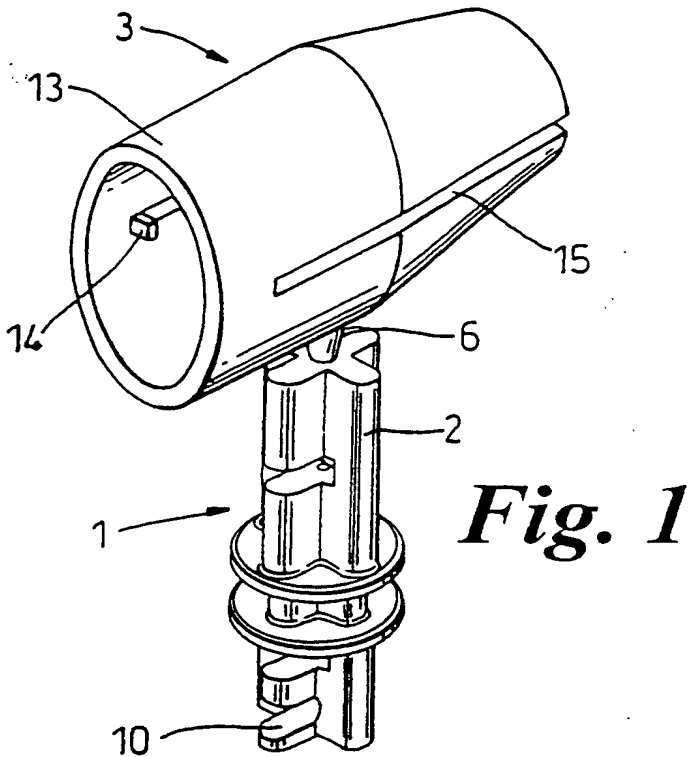
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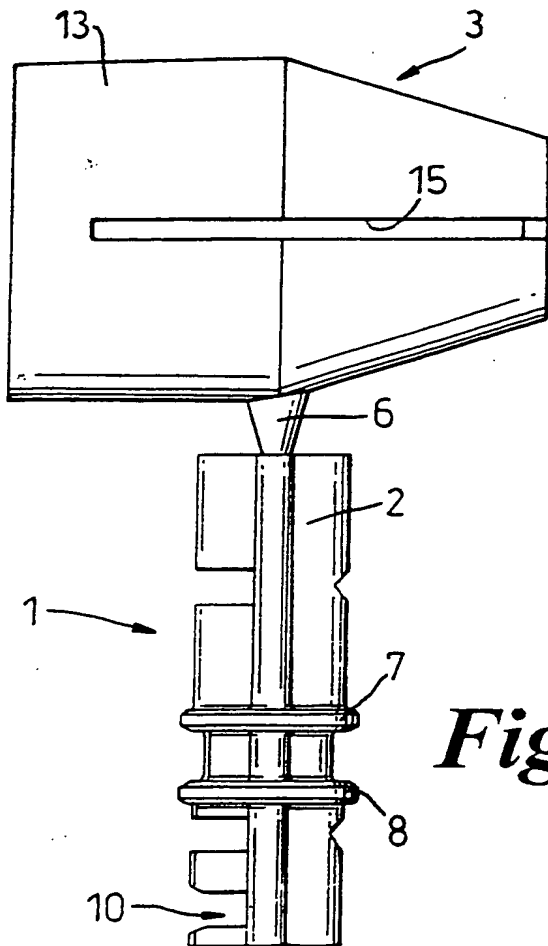
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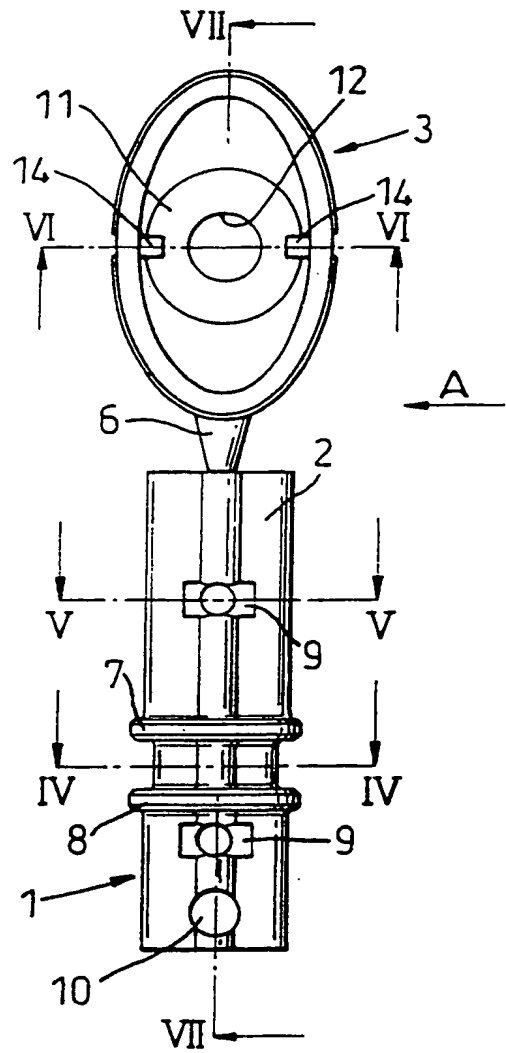
1/2



*Fig. 1*

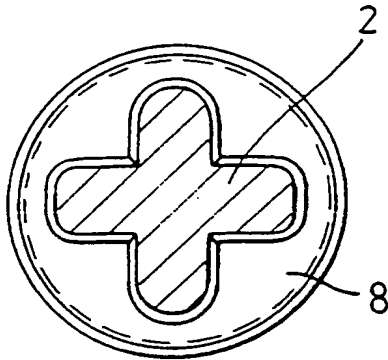
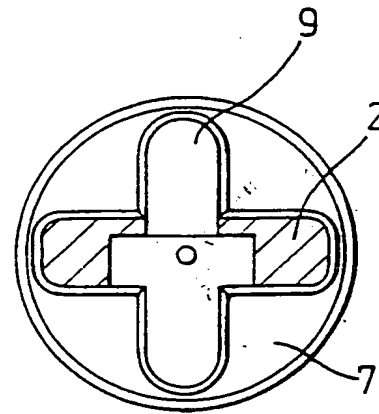
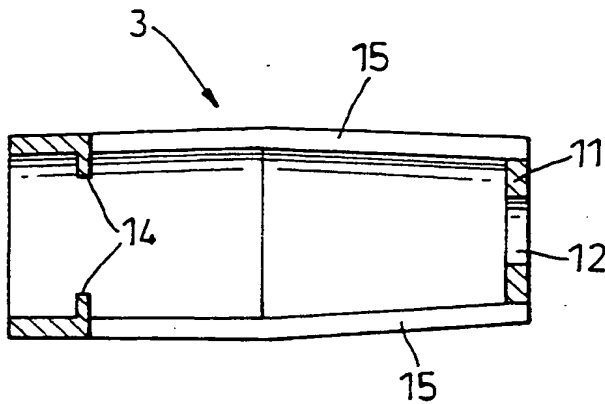
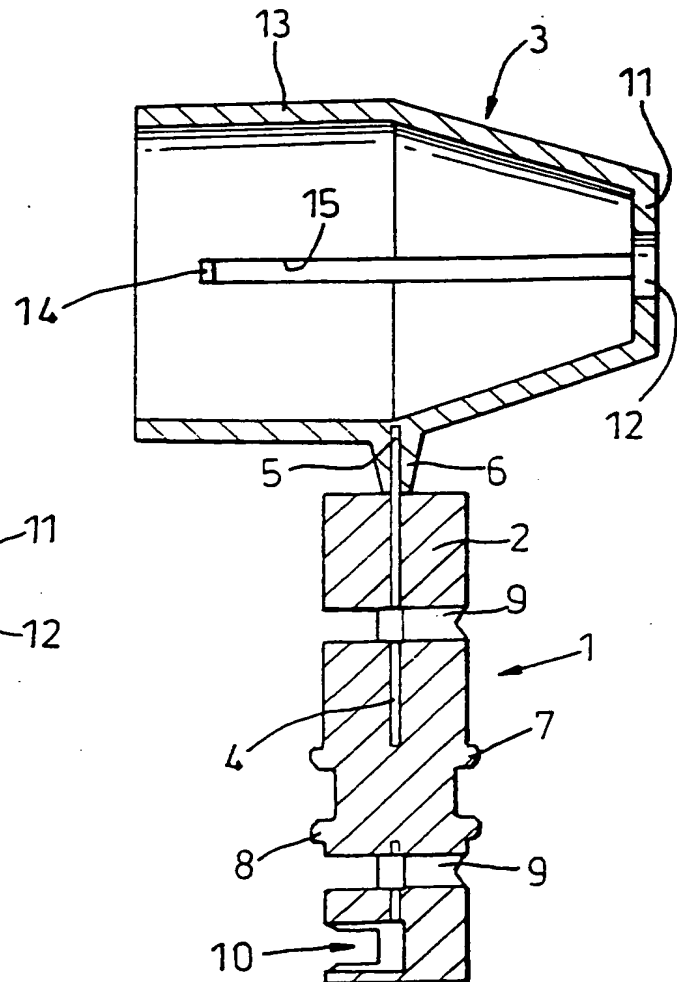


*Fig. 3*



*Fig. 2*

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*Fig. 4**Fig. 5**Fig. 6**Fig. 7*

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/04672

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61B5/15

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 324 303 A (ORINGER ROBERT ET AL) 28 June 1994 (1994-06-28) cited in the application column 2, line 1 - line 31 column 5, line 40-46 ---	1,5-8
A	EP 0 885 590 A (BAYER AG) 23 December 1998 (1998-12-23) abstract; figures 1,2 ---	3
A	US 5 304 193 A (ZHADANOV SAM) 19 April 1994 (1994-04-19) abstract; figure 1 column 1, line 65 -column 2, line 11 ---	4
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Date of the actual completion of the international search

25 April 2001

Date of mailing of the international search report

10/05/2001

Name and mailing address of the ISA

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Gaillard, A

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International Application No

PCT/GB 00/04672

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A	US 5 454 828 A (SCHRAGA STEVEN) 3 October 1995 (1995-10-03) abstract column 2, line 26 -column 3, line 15; figures 1-4	1
A	DE 197 18 081 A (BOEHRINGER MANNHEIM GMBH) 5 November 1998 (1998-11-05) abstract column 2, line 11 - line 39; figures 1,.3	1

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			EP	0987983 A	29-03-2000

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>SL/SMR/OML . 44</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 00/ 04672</b>	International filing date (day/month/year) <b>07/12/2000</b>	(Earliest) Priority Date (day/month/year) <b>08/12/1999</b>
Applicant  <b>OWEN MUMFORD LIMITED et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



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the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

**INTEGRATION OF A LANCETTE WITH ITS CAPTURING AND REMOVING CAP**

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1



None of the figures.

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